

REMARKS

Claims 1-5 are pending in this application. By this Amendment, claims 1, 3 and 4 are amended. No new matter is added by these amendments as support for the amendments can be found at least in paragraphs [0033] and [0065] of the specification, as originally filed. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

The Office Action, in paragraph 2, asserts that the specification is objected to for failing to provide proper antecedent basis for the claimed subject matter. Additionally, the Office Action, in paragraph 3, objects to the drawings under 37 C.F.R. §1.83(a) for not showing every feature of the invention.

The Office Action asserts that the claimed term "subfield number setting circuit," recited in claims 3 and 4, does not appear in the pending specification. The Applicants respectfully bring to the Examiner's attention, at least paragraphs [0016], [0020] and [0031], in addition to Fig. 4. Applicants respectfully submit that the term "subfield number setting circuit," is adequately described in the specification and depicted in the drawings. Therefore, withdrawal of the objections to the specification and the drawings is respectfully requested.

The Office Action, in paragraph 5, rejects claims 1-5 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Specifically, the Office Action asserts that the method of selectively setting a number of subfields, as recited in claim 1, and the subfield number setting circuit, as recited in claims 3-5, have not been disclosed. As discussed above, this feature is adequately disclosed, and therefore enabled in at least paragraphs [0016], [0020] and [0031], in addition to Fig. 4.

Additionally, the Office Action asserts that the timing signal generating signal is lacking circuitry. Specifically, the Office Action refers to inputs $D_s0 \dots D_s6$, and asserts that

the origin of these inputs is not disclosed. At least in paragraphs [0031]-[0035] the circuitry is adequately disclosed, contrary to the assertions of the Office Action.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-5 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement, are respectfully requested.

The Office Action, in paragraph 7, rejects claims 1 and 2 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,127,991 to Uehara et al. (hereinafter "Uehara"). Applicants respectfully traverse this rejection.

The Office Action asserts that Uehara teaches selecting a number of subfields, and dividing a frame into subfields. Uehara does not teach selectively setting a number of subfields within a frame in accordance with a signal specifying a number of gray scale levels, and then dividing the frame into the specified number of subfields. Rather, Uehara teaches that "[p]lural subfield period groups are prepared by combining predetermined subfield periods of the plural subfield periods, so that the difference in brightness between gradations in the gradation group on the low brightness side among the plural gradation groups is smaller than the difference in brightness between the gradations in the gradation group on the high brightness side" (col. 4, lines 5-12).

Uehara teaches that the subfields into which any alleged frame is divided are constituted beforehand in accordance with the gradations to be displayed, to perform a gradation display by controlling lighting and non-lighting (col. 10, lines 59-64). Therefore, Uehara teaches that the number of subfields into which a frame is divided are not set in accordance with a signal specifying a number of gray scale levels, but instead, the number of subfields are predetermined and simply grouped accordingly to obtain the required brightness.

Additionally, Uehara does not disclose that the length of the initial subfield is determined in accordance with a threshold voltage, and the threshold voltage is an effective

voltage at which the gray scale level begins to change at the pixel, as is positively recited in at least amended claim 1. Rather, Uehara teaches that in the method of driving the flat panel display apparatus of the invention, in one field period constituted of plural subfield periods, to display a desired brightness, each of the plural subfield periods is set to a pixel lighting period (length) in accordance with a relative brightness ratio (col. 3, line 64 - col. 4, lines 1), and not determined in accordance with a threshold voltage, as is positively recited in amended claim 1.

For at least the above reasons, Uehara cannot reasonably be considered to teach, or even to have suggested, the combination of all of the features recited in at least independent claim 1. Further, claim 2 is also neither taught, nor would it have been suggested, by the applied reference for at least the dependence of this claim on an allowable independent claim 1, as well as for the separately patentable subject matter that this claim recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1 and 2 under 35 U.S.C. §102(e) as being anticipated by Uehara, are respectfully requested.

The Office Action, in paragraph 8, rejects claims 1 and 2 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5, 818,419 to Tajima et al. (hereinafter "Tajima"). Additionally, the Office Action, in paragraph 12, rejects claims 3-5 under 35 U.S.C. §103(a) as being unpatentable over Tajima in view of U.S. Patent No. 6,806,859 to Kanoh et al. (hereinafter "Kanoh"). Applicants respectfully traverse these rejections.

Tajima does not teach selectively setting a number of subfields within a frame in accordance with a signal specifying a number of gray scale levels. Rather, Tajima discloses that a vertical synchronization signal is employed to determine the number of sub-frames to form one frame. Tajima states "[t]he basic idea of the present invention is the changing as needed of the number of sub-frames, depending on the frequency of a supplied vertical synchronization signal" (col. 9, lines 31-34). Therefore, Tajima cannot reasonably be

considered to teach that the number of subfields is set in accordance with a number of gray scale levels.

Additionally, Tajima does not disclose that the length of the initial subfield is determined in accordance with a threshold voltage, and the threshold voltage is an effective voltage at which the gray scale level begins to change at the pixel, as is positively recited in amended independent claim 1. Rather, Tajima teaches that each subframe is of equal duration as shown in Fig. 2, and the number of subframes, as discussed above, is determined by a vertical synchronization signal. Thus, Tajima teaches that the length of the initial subfield is based on a vertical synchronization signal, and not on a threshold voltage, as is positively recited in amended claim 1.

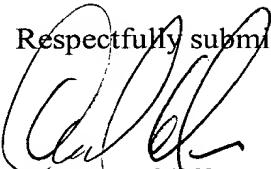
The Office Action, in paragraph 12, relies on Kanoh to overcome the deficiencies in the application of Tajima to the subject matter of claims 3-5. Kanoh, as applied in the Office Action, does not overcome the deficiencies identified above. Kanoh is silent regarding the setting of subfields in accordance with the number of gray scales, or the length of the initial subfield being determined in accordance with a threshold voltage.

For at least the above reasons, Tajima in any permissible combination with Kanoh, cannot reasonably be considered to teach, or even to have suggested, the combination of all of the features recited in at least independent claims 1, 3 and 4. Further, claims 2 and 5 also are neither taught, nor would they have been suggested, by the applied references for at least the respective dependence of these claims on allowable independent claims 1 and 4, as well as for the separately patentable subject matter that each of these claims recite.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-5 under 35 U.S.C. §102(b) as being anticipated by Tajima and under 35 U.S.C. §103(a) as being unpatentable over Tajima and Kanoh, are respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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